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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,508	10/24/2003	Lev Novik	MSFT-2845/306724.01	9285

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EXAMINER

PHAM, KHANH B

ART UNIT	PAPER NUMBER
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2166

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/692,508

Applicant(s)

NOVIK, LEV

Examiner

Khanh B. Pham

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/6/2007 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-8, 10-18, 20-28, 30** are rejected under 35 U.S.C. 102(b) as being anticipated by Peng (US 2001/0048728 A1), hereinafter "**Peng '728**"

As per claim 1, Peng '728 teaches a method for synchronizing a plurality of instances for a data platform, said method comprising:

- “uniquely enumerating changes in sequence on an instance by instance basis using a change number” at [0035];
- “maintaining a separate vector for each instance, each vector comprising a most recent change number for its associated instance” at [0034], “and a most recent known change number for each other instances from among said plurality of instances that are known to said instance, each being a know instance, wherein said vector represents all changes that have been made to said associated instance” at [0036], [0039]-[0041].

As per claim 2, Peng '728 teaches the method of claim 1 wherein “said change number comprises a unique identification number for said instance and a relative incremental count of changes made to said instance” at [0035].

As per claim 3, Peng '728 teaches the method of claim 1 wherein “a first instance, to partially synchronize with a second instance, requests changes from said second instance by sending to said second instance its vector, and wherein said second instance, based on the vector it receives from said first instance, sends to said first instance only those changes that said first vector has not yet received” at [0055], [0073]-[0074] and Figs. 7-16.

As per claim 4, Peng '728 teaches the method of claim 3 wherein "said second instance, based on the vector it receives from said first instance, further determines that said first instance has changes that said second instance has not yet received, and sends its own vector to said first instance to request these changes, and wherein said first instance, based on the vector it receives from said second instance, sends to said second instance only those changes that said second vector has not yet received" at [0055], [0073]-[0074] and Figs. 7-16.

As per claim 5, Peng '728 teaches the method of claim 1 wherein "a first instance, when changing a first Item to relate via a Relationship to a second Item that was not previously being synchronized, to send all change information pertaining to said second Item to a second instance when synchronizing with said second instance so that said second Item in said second instance is synchronized with said second Item in said first instance" at [0055], [0073]-[0074] and Figs. 7-16.

As per claim 6, Peng '728 teaches the method of claim 1 wherein, "when by default operation a parent Item is transmitted before a child Item to said parent Item, and wherein a plurality of changes are typically transmitted in sequential order of a plurality of change numbers corresponding to said changes during a synchronization, and wherein between synchronizations a child Item is changed and then a parent Item is changed in a first instance, any change units pertaining to said child Item are sent

from said first instance to a second instance during a synchronization only after all change units pertaining to the parent Item are sent” at [0094]-[0096] and Figs. 7-16.

As per claim 7, Peng ‘728 teaches the method of claim 1 wherein, “for an Item deleted by a first instance, a tombstone comprising the identification of the Item deleted is created, and said tombstone is sent as part of a synchronization to notify a second instance to identify the Item to be deleted in said second instance” at [0093] and Figs. 7-16.

As per claim 8, Peng ‘728 teaches the method of claim 7 wherein, “for a first instance having a parent Item and a first child Item to said parent Item, when said child Item is deleted and then said parent Item is deleted, said first instance sending only the change to said parent Item to a second instance during a synchronization where (a) the deletion of a parent Item automatically results in the deletion of all children Items for said parent or (b) the second instance, receiving the tombstone for the parent Item, proceeds to delete the parent Item and automatically deletes the child Item” at [0091]-[0093] and Figs. 7-16.

As per claim 10, Peng ‘728 teaches the method of claim 1 wherein, “for synchronization between a first instance on a storage platform that allows a dangling

relative reference and a second instance on a storage platform that does not allow a dangling relative reference that include at least one change to a relative reference and at least one other change, sending said change to said relative references after said one other changes" at [0091]-[0093] and Figs. 7-16.

Claims **11-18, 20-28, 30** recite system and medium for performing similar method as in claims 1-8, 10 and are therefore rejected by the same reasons.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9, 19, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peng, as applied to claims above, and in view of Sakaki (US 2004/0267834 A1), hereinafter "Sakaki"

As per claims 9, 19, 29, Peng '728 teaches the method, system and medium of claims 1, 11, 21 as discussed above. Peng '728 does not explicitly teach the further limitation of claim 9, 19, 29. However Sasaki teaches a similar method for data synchronization including the step of:

“wherein a first Relationship and a second Relationship of a first instance swap names using a temporary name element such that, in order, (a) the name of the first Relationship is transferred to said temporary name element, (b) the name of the second Relationship is transferred to said first Relationship, and (c) said name stored in the temporary name element is copied to said second Relationship, and wherein said first instance synchronizes with a second instance and sends a duo of change units representing, in order, (i) the new name for said first Relationship and (ii) the new name for said second Relationship, and wherein effecting the first change of said duo of changes results in an attempted change having an error in the second instance because a result of said first change is for the first Relationship and the second Relationship having the same name, a method by which said second instance proceed to copy said name of the first Relationship to a local temporary name element” at [0045], [0068] and Figs. 3A-6;

“if, during the synchronization, a subsequent change is received for copying the name of said second Relationship to said first relationship occurs, then performing said change as well as also copying said name in said local temporary name element to said first Relationship; and if, during the synchronization, a subsequent change is not received for copying the name of said second Relationship to said first relationship

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occurs, then raising a conflict regarding for the attempted change" at [0054], [0068], and Figs. 3A-6.

Thus, it would have been obvious to one of ordinary skill in the art to combine the Peng with Sasaki's teaching because the elements as disclosed by Sasaki would have enable Peng '728 to avoid conflicts with the storage of processing capacities of the mobile device, such as, using excessive amount of memory to store related objects which adversely impacts the performance of the mobile device (Sasaki [0005])

Response to Arguments

6. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Examiner's Note: Examiner has cited particular paragraph numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well

as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the Claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

If a reference indicated as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is **(571) 272-3574** for faster service.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-4116. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Khanh B. Pham
Primary Examiner
Art Unit 2166

August 16, 2007


